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CONFERENCE PROCEEDINGS

Toward a Theory of Intelligence

Workshop Report

Gregory F. Treverton, Seth G. Jones, Steven Boraz, Phillip Lipscy

Approved for public release; distribution unlimited

Prepared for the Office of the Secretary of Defense



The research described in this report was carried out within the RAND National Security Research Division, which conducts research for the U.S. Department of Defense, allied foreign governments, the intelligence community, and foundations.

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PREFACE TOWARD A THEORY OF INTELLIGENCE: WORKSHOP REPORT

On June 15, 2005, the Office of the Director of National Intelligence (ODNI) in partnership with the RAND Corporation convened a one-day workshop at RAND's Washington, D.C., office to discuss how theories underlie our intelligence work and might lead to a better understanding of intelligence. The Assistant Deputy Director of National Intelligence for Strategy, Plans, and Policy (ADDNI/SPP) had three primary objectives: (1) to begin a series of debates about the future of intelligence writ large (as opposed to just the future of the Intelligence Community or its organizational structure); (2) to lay the intellectual foundations for revolutionary change in the world of intelligence by challenging the continuing validity of our assumptions about it; and (3) to bridge the divide that has long separated intelligence scholars and practitioners.

The mechanism for accomplishing these goals was an unclassified dialogue among a distinguished group of 40 practitioners, academics, and specialists from Europe and North America. The discussion was structured—but most definitely not scripted. The day revolved around a series of four panels, at which discussants spoke freely from different perspectives on common themes and then engaged in lively give-and-take with the audience (many of whom were discussants on other panels). The ODNI and RAND chose the topics, discussants, and audience members, but did not instruct participants what to say or see their comments ahead of time. With the agreement of the panel discussants, they are identified in the report and their "opening statements" are reported at length; they had the opportunity to review the report's commentary on their presentation. Otherwise, the workshop was held on a not-for-attribution basis.

The participants spoke from many professional and personal viewpoints, and the enthusiastic interaction subjected their ideas to critical and sometimes catalytic scrutiny. Notions held at the beginning of the day may have changed, or at least were more clearly articulated and understood, at the day's end. Professional intelligence officers will find in this report opinions that look familiar but also find others that challenge or refine the customary formulations.

This report summarizes the results of the workshop. Like the workshop, it was a cooperative product. Deborah Barger (the ADDNI/SPP) and Gregory Treverton, senior policy analyst at RAND, served as the key facilitators at the workshop. Treverton and Seth Jones from RAND took primary responsibility for the draft. They express their appreciation to their RAND colleagues, Steven Boraz and Phillip Lipscy, as well as to their formal reviewers, Robert Jervis and Richard Hundley. The Office of the ADDNI/SPP revised the draft and approved its final form.

This research was conducted within the Intelligence Policy Center (IPC) of the RAND National Security Research Division (NSRD). NSRD conducts research and analysis for the Office of the Secretary of Defense, the Joint Staff, the Unified Commands, the defense agencies, the Department of the Navy, the Marine Corps, the U.S. Coast Guard, the U.S. Intelligence Community, allied foreign governments, and foundations.

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INTRODUCTION

The Intelligence Reform and Terrorism Prevention Act of 2004 redefined "national intelligence." The new law sought to move beyond the traditional American notion of intelligence as something that can and should be organized around the sources and methods it employs and "done" according to strict legal distinctions between foreign and domestic concerns. Rather, the Intelligence Reform Act emphasized timeliness and accuracy, calling for intelligence to be organized around issues or problems, not sources or the provenance of information. The Act also underscores the importance of information sharing within and beyond the U.S. government, making older concepts of secrecy less useful. The extent of change in the Act might lead one to question whether the Intelligence Community (IC) has finally embarked upon a "revolution in intelligence affairs." But exactly what is that revolution?

To begin to answer that question, the new act and its remaking of the IC provided a backdrop, but the participants were challenged to go back to first principles. What is intelligence? Who needs what, when, and how? Could an examination of the theoretical underpinnings of intelligence explain relationships between factors and, ideally, have some predictive power? What is the relationship between intelligence and national security outcomes? How are the shifting realities of national strategy and technology affecting intelligence? What would a good theory (or theories) of intelligence look like?

The following sections of this report deal in turn with the following issues:

- What is intelligence theory?
- Is there a uniquely American theory of intelligence?
- Which assumptions about intelligence and intelligence reform are useful, and which should be overturned?
- Can results from intelligence be measured?

Each section outlines the session's topic and themes; presents the introductory remarks by the panelists, who acted as provocateurs; and summarizes the ensuing conversation, laying out the broad themes and points of debate that emerged. This report concludes by reframing the most important themes and suggesting some additional steps for further inquiry.

¹ Deborah G. Barger elaborated on this concept in *Toward a Revolution in Intelligence Affairs* (Santa Monica, Calif.: RAND Corporation, 2005).

SESSION 1: WHAT IS INTELLIGENCE THEORY?

The social and natural sciences offer useful lessons about what theory can and cannot do, as well as what components of theory are most useful for those who ultimately must act, not simply explain. Is intelligence most usefully conceived as information for decisionmakers, or does it also include actions, like espionage or covert action? How does intelligence contribute to achieving military victory, understanding foreign entities, making good policy decisions, or accomplishing other desirable outcomes? What factors are important?

This session examined both theory and intelligence, and explored the relationship between the two. The presenters were asked to address three questions: (1) What are the components of a good theory? (2) What is intelligence writ large, and is it susceptible to theory? (3) Are the theoretical underpinnings of intelligence changing?²

Presentations

Michael Warner, Office of the Director of National Intelligence

To derive a theory first requires a definition. Because intelligence means many things to many people, boiling it down to one single definition is difficult. Common usage seems to embrace two definitions, which are sometimes used interchangeably. For most people intelligence is "information for decisionmakers." This is broad in scope and includes all manner of decisionmakers, from business people to sports coaches to policymakers. For others, though, intelligence is "secret state activity designed to understand or influence foreign entities." The latter definition underscores three issues:

- On secrecy, it is manifestly true that intelligence cannot just be about "secrets." States need reams of information and cannot restrict themselves to gazing only at "classified data," on the one hand, or, on the other, using only information that is deemed politically correct at the time. That said, states also need to keep secrets, and thus someone in the state must be good at keeping them. Therefore, a working definition of intelligence for states must include a consideration of secrecy.
- Intelligence for national policymakers is different in kind, not merely in degree, from intelligence for other decisionmakers operating in competitive

- 1. The general or abstract principles of a body of fact, a science, or an art.
- 2. A plausible or scientifically acceptable general principle or body of principles offered to explain natural phenomena.
- 3. A working hypothesis that is considered probable based on experimental evidence or factual or conceptual analysis and is accepted as a basis for experimentation.

² Merriam-Webster's Medical Dictionary, (Merriam-Webster Inc., 2002) at http://dictionary.reference.com/search?q=theory, describes theory as:

- environments. That is so because intelligence for states can mean life or death. Highlighting this difference explains why intelligence predates the nation-state. Indeed, intelligence dates to the earliest days when sovereign powers decided to war with one another for control of territory and populations (and to execute traitors who divulged their secrets).
- Finally, intelligence includes clandestine activity as well as information. This is not something limited to the English-speaking world, where the word intelligence has come to connote espionage as well as confidential information over the last century or so. The cognate terms in French [renseignement], German [nachrichten], and Russian [razvedka] have undergone a similar expansion of meaning in the industrial era. In a sense, the terms have expanded to fit better with an ancient understanding of secrecy and statecraft.

The Chinese writer Sun-Tzu (circa 300 BC) treated espionage as both information and action, including the range of disciplines now labeled foreign intelligence, counterintelligence, and covert action. To be effective they had to be supervised together, Sun-Tzu said, and they had to work in secret: "When these types of agents are all working simultaneously and none knows their method of operation, they are called 'The Divine Skein' and are the treasure of a sovereign." This may be the earliest known expression of an organizing principle for intelligence work.

David Kahn, Newsday

Theories of intelligence may be explored in three main ways—historical, mathematical, and psychological.

A historical theory looks at intelligence in the past, the present, and the future. Intelligence can be divided into physical or verbal. Physical intelligence consists of information drawn from things—seeing troops, hearing tanks, or smelling food. Animals use physical intelligence, as have men since ancient times. But, while it lessens anxiety and steadies command because commanders can see or hear the enemy troops or guns, it has rarely been decisive in warfare. Verbal intelligence acquires information from a written or spoken source such as an order or a plan. It magnifies strength by giving commanders time to prepare. So, when it emerged as a major factor with the growth of radio in World War I, it gave armies major victories for the first time. Verbal intelligence transformed intelligence into a significant instrument of war.

In the present, three intelligence principles can be put forward. The first combines steadying command and magnifying strength by optimizing resources. When commanders do not have enough intelligence, they must replace it with their own forces and their will. Logically, the implication of insufficient intelligence is enemy surprise. The second principle holds that intelligence is an auxiliary, not a primary, factor in war. It is indeed a force multiplier and facilitator of command, but it cannot always make up for insufficient strength or inadequate leadership. The third principle maintains that intelligence is essential to the defense but not to the offense. A commander must know

³ Sun Tzu, *The Art of War*, as translated by Samuel B. Griffith (New York: Oxford University Press, 1963), p. 145.

an enemy will attack in order to defend. The attacker imposes his will on the defender, reducing the attacker's uncertainty, and so his need for information.

The future raises the two unsolvable problems of intelligence. One is predicting the future and the other is convincing policymakers of what they may not want to believe. While these problems are intensified by the proliferation of unbreakable systems of cryptography, they may be ameliorated by humankind's greater reliance on facts and logic, its thirst for knowledge, and the tendency towards least effort, which intelligence aids.

A mathematical theory might quantify intelligence and so make it more precise and amenable to testable prediction. The mathematician and engineer Claude Shannon, in his pathbreaking *The Mathematical Theory of Communication*, divided information into bits, or binary digits, of information.⁴ He then showed that the more surprising the information is, the more valuable it is. This may be taken as a first step towards quantifying intelligence. In a less technical move towards quantification, the German sociologist Georg Simmel opened his section on secrecy in his *Soziologie* by saying, "All relationships of men between themselves rest obviously on the fact that they know something about one another." This breaks the great amorphous mass of knowledge into individual pieces and thus makes it amenable to mathematical or statistical manipulation, though he himself did not do this. And the pieces of knowledge that men do not know about one another—the secrets—are likewise rendered discrete and also able to be manipulated.

Finally, there is a psychological aspect to any theory of intelligence. Intelligence is a mental phenomenon, and therefore so is its contrary, surprise. Though in a few cases people are surprised because they did not have enough information, more often they are surprised because they did not have enough time to make sense of the flood of facts. The clarity of hindsight proves this. The psychological aspect of intelligence is temporal. Intelligence fails people less from lack of facts than from lack of time. It may be said to be less external than internal, less a question of space than of time.

Peter Gill, Liverpool John Moores University

To develop intelligence theory, it is important to first ask: "What is the point?" Is the point to develop theories *of* intelligence to help academics research intelligence, come to understand it, and better explain it to students and the public? Or should theories *for* intelligence relate immediately to the needs of practitioners—gatherers, analysts, and managers, along with consumers, politicians, and other executives? In one sense, there is no conflict between these two. A good theory *of intelligence* should, by definition, be useful *for intelligence*.

The starting point is that intelligence does not exist in a vacuum; the world it surveys is not a "closed" system. Thus, it is necessary to start with general social and political theory before focusing on intelligence as the prime interest. In fancy language,

⁴ Claude Shannon, *The Mathematical Theory of Communication* (Urbana, Ill.: The University of Illinois Press, 1949).

⁵ George Simmel, *Soziologie: Untersuchungen über die Formen der Vergesellschaftung* (München: Duncker & Humblot, 1922).

is intelligence theory about ontology or epistemology?⁶ Is it about assumptions of reality or about trying to figure out how we know what we know? Postmodern assumptions that there is no reality, only competing narratives, are not of much help. For practitioners, the criteria for knowledge may be quite pragmatic. The "best truth," "what works," and similar statements assume that the criterion for knowledge is usefulness. This pragmatic answer cannot, however, be the end of the story, for the "knowledge" may actually be wrong.

Rather, knowledge develops through continuous interchange between theorizing and empirical studies. For example, counterfactual thinking (what if...?), dramatic cases, and comparative case studies might serve as test beds for evolving theoretical notions. More broadly, there are two polar positions on the relation between theory and empirical observation. One holds that the role of theory is to order, explain, predict, and that the validity of the theory can be assessed *only* against empirical data. The other believes that there are no facts independent of theories; all knowledge is socially constructed. Thus, "facts" can *never* be submitted to decisive empirical validation; anti-foundationalism or postmodernism hold this view.

However, neither of these positions is adequate, and "critical realism" rejects this Manichean divide. The first is impossible in the real world because social systems are open, not closed. This is especially true for intelligence: Notice the role of mysteries, secrecy, deception and the like. The second is a counsel of despair that negates conventional social science. For critical realism, reality does exist independent of the theories and concepts used to understand it, but the relation between theory and observation is ambiguous and fallible.

Scientific inference, drawing conclusions about one thing from something else, "cannot be reduced either to strictly logical inference (deduction) or to empirical generalization (induction). Scientific inference is not only about applying formal logic; it also involves reasoning, creativity, the ability to abstract, and theoretical language in order to see meanings and structures in the seemingly unambiguous and flat empirical reality."⁷

For example, in his article, "Bricks and Mortar for a Theory of Intelligence," Loch Johnson notes, "The objective is less to impart new knowledge than *to lay out what we know in such a manner as to suggest next steps* in theory construction (emphasis added).⁸ This suggests a historical and cultural center to any theory of intelligence, as well as a set of prescriptions or implications as to how to behave, which can sound more like ideology than theory. But all theories incorporate implications for action. Normative theories are explicit about these, while empirical theories also have implications, ones that are usually cautionary. A critical realist approach to intelligence theory explicitly embraces the

⁶ Ontology is the branch of metaphysics that deals with the nature of being; epistemology is the branch of philosophy that studies the nature of knowledge, its presumptions and foundations, and its extent and validity.

⁷ Berth Danermark et al., *Explaining Society: Critical Realism in the Social Sciences* (London: Routledge, 2002), p. 113.

⁸ See Loch K. Johnson, "Bricks and Mortar for a Theory of Intelligence," *Comparative Strategy*, Vol. 22, No. 1, January 2003), p. 1.

objective of making a difference, so that intelligence is developed democratically, ethically, and with regard to human rights.

In summary:

- *All* social phenomena are susceptible to theory.
- "Theories are indispensable when it comes to explanation, since they conceptualize causal mechanisms." 9
- Intelligence writ large needs to be defined in terms of surveillance; indeed, the two core conditions that *distinguish* surveillance are monitoring and discipline, which could be expressed as information and power. Intelligence is a subset of surveillance that is normally distinguished by (a) having security as an objective; (b) covering sources, methods, and products with some secrecy; and (c) involving some resistance in that the objects of attempts to gather information and exercise power frequently try to resist. This definition would include counterintelligence, thus clearly indicating that action is part of intelligence. Hence: Intelligence is the umbrella term referring to the range of activities—from targeting through information collection to analysis and dissemination—conducted in secret, and aimed at maintaining or enhancing relative security by providing forewarning of threats or potential threats in a manner that allows for the timely implementation of a preventive policy or strategy, including, where deemed desirable, covert activities. ¹⁰
- Concepts are crucial, not just for labeling empirical categories—"terrorist," "spy,"
 "agent," "message"—but also for defining and discerning mechanisms and
 structures, such as process, cycle, network, hierarchy, market, and the like.

Within intelligence, natural sciences play a major role in technical processes and collection disciplines. However, those sciences offer little to theories of intelligence because the artificial closed systems where controlled experiments can be carried out to discover mechanisms do not exist. Social science is always carried out in open systems where change is constant and, crucially, may take place in specific response to the actions of researchers.

Scholars start with different objectives than practitioners—understanding versus action or providing a report for a manager or consumer. But both would benefit from being theoretically grounded. Otherwise, the danger for practitioners is that their analysis will be full of untested assumptions: "Intelligence analysts seek knowledge with a degree of certainty sufficient to satisfy and inform those who wish to act upon it; academics are not seeking "truth" but knowledge with a degree of reliability that will satisfy peer reviewers and standards of 'intersubjectivity." "11

⁹ Danermark, cited above, p. 121.

¹⁰ Peter Gill and Mark Phythian, "Issues in the Theorization of Intelligence," paper presented at the International Studies Association conference in Montreal, March 2004.

¹¹ Gill and Phythian, cited above, p. 8.

Thus, intelligence necessarily comprises both information for decisionmakers and actions. It takes place in a context requiring theoretical and empirical attention to five different "levels" of inquiry: individual, small group, organizational, societal, and transsocietal.

Major Discussion Themes

1. Defining Intelligence

Following Michael Warner's lead, the workshop participants generally agreed that a good definition is a prerequisite for good theory, as well as for comparative study. However, the definitions offered ranged from the discursive to the terse. Some were discursive, such as: "The product resulting from the collection, processing, integration, analysis, evaluation, and interpretation of available information concerning foreign countries or areas." Others were terse: "The secret collection of someone else's secrets." Four elements merit scrutiny: secrecy, state activity, understanding/influencing, and foreign entities.

- **a. Secrecy**. There was a general consensus that secrecy is an important component of intelligence because it can provide a comparative advantage for the nation conducting intelligence. However, some participants questioned whether secrecy is a necessary element of a definition or just a metric for how good a country is at conducting it. All wondered whether it is the material used or the action of intelligence that needs to be classified. The latter, secrecy of action or clandestinity, seemed most applicable to a definition of intelligence. Clearly, open source information is used by intelligence agencies in large measure. According to most estimates, about 90 percent of the information used in intelligence analysis today comes from open sources. ¹⁴
- **b. State Activity**. How is intelligence conducted by nation-states different from that of other groups? The definition should not necessarily be limited to states. However, where should the line be drawn? Certainly, sports teams, businesses, and other organizations gather information that might provide them with some sort of comparative advantage. But does that constitute intelligence? In another example, where would transnational groups, such as al Qaeda, fit in? Are their activities intelligence? Their intelligence is similar to that of states in the secrecy and focus on gathering information on foreign entities. The differences are visible as well, notably minimal organization and a heavier reliance on open-source material.
- **c. Understanding/Influence**. It is not controversial that intelligence necessarily involves *understanding*. However, should *influence*, particularly in the form of covert

¹² Department of Defense Dictionary of Military and Associated Terms (as amended through 9 May 2005) at http://www.dtic.mil/doctrine/jel/new pubs/jp1 02.pdf.

¹³ This definition, cited in Philip H. J. Davies, "Intelligence Culture and Intelligence Failure in Britain and the United States," *Cambridge Review of International Affairs*, Vol. 17, No. 3, October 2004, is attributed to K. G. Robertson from his article, "Intelligence, Terrorism and Civil Liberties," *Conflict Quarterly*, Vol. VII, No. 2, pp. 43–62.

¹⁴ Loch K. Johnson, "Preface to a Theory of Strategic Intelligence," *International Journal of Intelligence and Counterintelligence*, Vol. 16, No. 4, October–December 2003, p. 648.

action, be included as a part of the definition? Detractors argue that covert action is better understood as policy execution.¹⁵ Clandestine activity probably merits consideration within the definition of intelligence.

d. Foreign Entities. Must intelligence be directed against foreign threats? Do domestic agencies, such as MI-5, perform intelligence or policing functions? Interestingly, intelligence models followed in virtually every country other than the United States do not sharply distinguish between foreign and domestic threats. ¹⁶ By contrast, the U.S approach to intelligence traditionally erected a wall between foreign and domestic intelligence. After September 11, the U.S. system has begun to diminish the distinction. Surely, regimes do use intelligence against all manner of challenges, domestic as well as foreign, and so it would be too limiting to restrict the term only to "foreign entities."

2. What Should Intelligence Do?

Should the goals of intelligence be included as part of the definition? How does an intelligence mission relate to theory? Missions for intelligence are listed below, roughly in the order of their popularity in the discussion.

- Identify points of opportunity for intervention that might change the state of affairs in some way, especially *before* a conflict (in fact, if a military solution ensues, that often indicates an intelligence failure);
- Help states attain a comparative advantage in decisionmaking, thus the term "actionable intelligence";
- Protect the state and its citizens to maximize security;
- Optimize resources;
- Integrate information to enhance understanding.

Several scholars note that, in practice, the goals of intelligence are heavily dependent on the foreign policy objectives of a country, which vary from the broad

¹⁵ For example, see Jennifer Sims, "What is Intelligence? Information for Decision Makers" in Roy Godson et al., eds., *U.S. Intelligence at the Crossroads: Agendas for Reform*, Washington, D.C.: Potomac Books, Inc., 1995, p. 8.

defining characteristic of non-Western intelligence regimes. See her "Political Intelligence in Non-Western Societies: Suggestions for Comparative Research," in Roy Godson, ed., *Comparing Foreign Intelligence: The US, the USSR, the UK, and the Third World* (Washington, D.C.: Pergamon-Brassey's, 1988, pp. 115–155. Michael Herman notes that the development of modern intelligence in most countries can be attributed in significant measure to the rise of internal security and secret police in the 19th and early 20th centuries; see his *Intelligence Power in Peace and War* (Cambridge University Press, 1996), pp.19–21, 341–361. The first significant, permanent intelligence functions in the United States also arose in response to internal security concerns; the Department of Justice's Bureau of Investigation (renamed the FBI in 1935) was assigned its counterintelligence role in 1917, and the U.S. Army's sustained cryptologic activity was formed shortly thereafter to support that effort.

commitments of the United States to the narrow focus of New Zealand.¹⁷ It is undoubtedly helpful to separate the goals of intelligence that are common across a wide range of cases, such as those outlined above, from more specific goals that may be specific to a country or the particular threat it is addressing.

3. The Lack of Comparative Research on Intelligence

Participants lamented the lack of studies available that compare intelligence agencies. Most of what is written is on British or U.S. systems and, even then, rarely comparative. More understanding of foreign intelligence agencies can be helpful from both academic and practical perspectives, helping not only to develop theory but also to identify some best practices. It was pointed out, however, that there is a considerable body of Soviet and Russian theory. The Russian experience, with its chaotic history of intelligence coordination and integration, may dovetail with American experience. And the contributions by Europeans in countries other than Britain are evidenced, among other things, by their representation in the workshop.

4. Toward a Theory of Intelligence

The discussion centered on the issue of whether the point of an intelligence theory is to explain what is or describe what ought to be. The skeptics also argued that theory may not be applicable to intelligence.

a. Theory Development. What is the relationship between definition and theory? In attempting to develop theory, it is first necessary to decide whether the effort is empirical or normative, seeking to explain "what is" or "what ought to be." The next step is asking about what is to be explained (i.e., identifying the dependent variable or variables, in social science language). Some candidates for dependent variables included

¹⁷ Loch K. Johnson, "Preface to a Theory of Strategic Intelligence"; Michael Herman, *Intelligence Power in Peace and War*, pp. 341–361; Stephen Marrin, 3 March 2002 posting on H-Diplo (www.h-net.org/~diplo/).

¹⁸ An idea well articulated in Kevin O'Connell, "Thinking About Intelligence Comparatively," *Brown Journal of World Affairs*, Vol. 11, No. 1, Summer/Fall 2004, pp. 189–199. Also see Glenn P. Hastedt, "Towards the Comparative Study of Intelligence," *Conflict Quarterly*, Vol. XI, No. 3, Summer 1991.

¹⁹ One example of a comparative study of the U.S. and British systems is Philip H. J. Davies, cited above, pp. 495–520.

²⁰ While this is a promising area for future research, some good comparative studies do exist. For example, Roy Godson, ed., *Comparing Foreign Intelligence: The US, the USSR, the UK, and the Third World* (Washington, D.C.: Pergamon-Brassey's, 1988) and Adda Bozeman's *Strategic Intelligence and Statecraft* (Washington, D.C: Brassey's, 1992). Michael Herman, *Intelligence Services in the Information Age: Theory and Practice* (London: Frank Cass, 2001) evaluates intelligence agencies in the United States, UK, Norway, and New Zealand. More recent studies include Hans Born, ed., *Parliamentary Oversight of the Security Sector: Principles, Mechanisms and Practices* (Geneva: Geneva Centre for the Democratic Control of the Armed Forces, 2003) and Thomas C. Bruneau, ed., with Steven C. Boraz, *Reforming Intelligence: Obstacles to Democratic Control and Effectiveness* (Austin, University of Texas, 2006) which looks at the development of intelligence agencies in ten countries, especially in terms of democratic, civilian control.

- cross-national variation in intelligence agencies/approaches;
- rates of success or failure;
- when intelligence is politicized;
- when information is distorted;
- goals of intelligence agencies;
- the degree of military control over intelligence;
- allocation of resources to different types or stages of intelligence (for instance, HUMINT vs. SIGINT, collection vs. analysis);
- "imagination."

Some possible explanatory variables included

- bureaucratic politics (i.e. interagency competition)
- organization theory
 - incentives to be risk averse
 - routinized procedures
 - promotion of specific types of analysis
- psychological factors (cognitive dissonance and other biases)
- historical contingency
- technological change
- demands from politicians and policymakers
- threat perceptions
 - internal vs. external threats
 - changes in the international system (i.e., the end of the cold war)

b. A Skeptical View. The participants were divided over whether a theory of intelligence could be developed in some form and asserted that at best a theory of intelligence is ambiguous. Some argued that a good theory should be applicable at all times and in all contexts. Today's policymaking process (and, some argued, intelligence) is political and bureaucratic, and therefore any theory developed today might not be able to transcend the threat of the moment: transnational terror. In essence, theory is developed to try to find overarching similarities and differences in specific contexts. As one participant put it, "You can't have a formula where nothing is constant."

²¹ Some scholars have turned to postmodernist approaches based on the observation that inherent ambiguities and uncertainties in intelligence limit the applicability of positivist theory. Andrew Rathmell observes that many recent developments in intelligence, such as the end of the cold war and the rise of diffuse threats, mirror the transition from modernist "grand-narratives" to postmodernist fragmentation. See his "Towards Postmodern Intelligence," *Intelligence and National Security* 17 (2002). Gill and Phythian assert that postmodernist approaches cannot be useful insofar as they deny the existence of an independent reality, but they may be helpful in getting analysts to recognize the sources of their subjective biases and contextualizing their analyses. See their paper, cited above. Also see James Der Derian, *Antidiplomacy: Spies, Terror, Speed, and War* (Cambridge, Mass.: Blackwell, 1992).

SESSION 2: IS THERE AN AMERICAN THEORY OF INTELLIGENCE?

This session focused on exploring whether there is—or has been—a uniquely American way of thinking about intelligence. What factors have influenced the U.S. intelligence business? The United States has organized and tasked its intelligence establishment in its own way, for example, by creating a sharp distinction until recently between foreign and domestic intelligence, and between intelligence and law enforcement. Does this uniqueness derive from some sort of "American exceptionalism," in which specific factors of culture, geography, and historical circumstance have combined in a way that is not likely or even possible to be replicated anywhere else? Or have Americans stumbled into some notions of what intelligence can and should do that might be more general in their application? If so, what are they? How can the United States itself spot the enduring principles, if any, amid the background noise of current events and day-to-day bureaucratic struggle?

Presentations

John Ferris, University of Calgary

U.S. intelligence is based in Anglo-American tradition. George Washington, who was trained in the British Army, was the first user and coordinator of U.S. intelligence. There may not necessarily be a unique U.S. model of intelligence, but two distinctive periods can be identified: (1) from the Revolutionary War until about 1914, and (2) from 1940 to present.

First, from the time of the Revolutionary war until about 1914, there was a tradition of intelligence gathering in the United States, but no long-standing institutions existed. Intelligence collection was done on a case-by-case basis. The functions of intelligence can be seen as a constant, but the organizations doing intelligence cannot. No threat to liberty at home existed to justify permanent organizations.

Second, from 1940 to the present, the history of U.S. intelligence is technocratic, bureaucratic, militarized, and centralized. U.S. intelligence organization and capability are based on technical means to an unusual degree. The system is bureaucratic because it is dominated by a preponderance of extremely large intelligence organizations. In the struggle between strategic intelligence and military, generally conceived of as tactical or operational, the military has won. The result is a highly militarized and technocratic intelligence system.

Since the cold war, U.S. intelligence has displayed faith in organization, technology, and managerial solutions, and in the notion that intelligence can solve problems. For instance, the current U.S. lead in command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) gives it an enormous advantage in putting bombs on target. However, some military lessons can be misleading because the current U.S. military theory about what intelligence can do has its basis in a tactical or operational context, an area where the technical nature of U.S. intelligence excels. As a result, lacking a strategic view, U.S. intelligence runs the risk of thinking that it can do more than it is actually able to do. Fundamentally, intelligence is a human

action and so is inherently ambiguous and provides no certainties; actions based on it are gambles.

Loch Johnson, University of Georgia

For too long, the role of intelligence in world affairs has stood in the shadows of traditional research on international relations. What a pity that it takes events like Pearl Harbor in 1941, the revelations of Operations Chaos and COINTELPRO in 1974, the terrorist attacks of 9/11, and the mistakes about weapons of mass destruction (WMD) in Iraq in 2002 to underscore the importance of intelligence. But at last the public (and perhaps even hide-bound international relations theorists) seem ready to acknowledge the need to understand the hidden side of government.

Before turning to the U.S. case, it is worth restating the qualities of a good theory. It must have explanatory power, exhibit parsimony, and allow falsifiability. But where should we begin in the nascent field of intelligence studies? The starting place is with the basics of human nature. Humans are motivated by two dominant instincts. One is the fundamental desire to survive. Another is the hope for prosperity—what economists refer to as "maximizing personal economic utility." Survival is associated with the fear of danger, both at home and abroad, both real and perceived; prosperity, with a sense of ambition. In both cases, information is vital to success: Nations seek information about threats and opportunities. A certain amount of this information is kept secret by other nations. Thus, countries need intelligence agencies, not just a Library of Congress.

Moreover, nations seek to protect their own secrets from prying eyes; therefore, they establish a counterintelligence corps. Nations look, as well, for whatever edge they can find against competitors; hence, the allure of covert action methods for shaping history to their advantage. Finally, democracies have a related interest, the protection of citizens against a possible abuse of power by the very agencies they find so necessary for security—accountability or "oversight." A theory of intelligence will need to take into account each of these considerations—the intelligence cycle, counterintelligence, covert action, and accountability. There is much work to be done, especially with definitions and the crafting and testing of hypotheses. In the early stages, there is no reason to be dogmatic about approaches and methodologies; we must only insist on accuracy, clarity, and rigorous testing.

The foregoing applies to all nations. This leads to an important question: What, if anything, distinguishes U.S. intelligence? The affluence to pursue far-flung global interests with the protection afforded by a purportedly \$40 billion intelligence shield, along with an abiding heritage of civil liberties at home, combine to make U.S. intelligence different, not so much in its *raison d'etre* as in the magnitude of the financial investment and the commitment to oversight procedures that the nation is willing and able to make. Any theory that seeks to explain U.S. intelligence must take into account America's wealth and the primacy of its democratic traditions.

To be sure, other countries also have global interests and concerns, advanced technology, and democratic procedures, but the United States is in a class by itself. The United States has the financial resources to reach around the globe, guided by sophisticated satellites and other spy machines. As for accountability, America is the world's oldest constitutional democracy, with a long tradition of suspicion about

government powers. It is true that intelligence was treated at first as an exception to the rule of checks-and-balances. However, the experiences of Chaos and COINTELPRO, along with the Iran-*contra* scandal in 1987, have convinced many people that intelligence should be subject to oversight like the rest of the government.

Oversight, a "shock theory" of intelligence accountability based on facts on the ground, might serve as an illustration of efforts to move toward a theory of American intelligence. Thirty years have passed since Congress began to take intelligence accountability more seriously in 1975. Since then, lawmakers have devoted about six years of time to intensive, retrospective investigations into intelligence controversies, such as the Iran-*contra* affair. This attention may be called "firefighting." In contrast, the other 24 years (80 percent of the total) has consisted of "police patrolling," sometimes intense in the aftermath of "fires," but most of the time sporadic.

Operation Chaos was the first intelligence "fire alarm" of sufficient shrillness to bring out the hook-and-ladder trucks on Capitol Hill. The Church Committee issued reports critical of domestic spying and foreign assassination plots, and recommended the creation of a permanent oversight committee in the Senate.²² The other major fire alarms have included the Iran-*contra* scandal; the Ames counterintelligence failure (1994);²³ the 9/11 intelligence failure; and the mistaken estimates about Iraqi WMD.

Of the ten major intelligence reform initiatives adopted by Congress since 1974, only one arose outside the context of a major fire alarm: the Intelligence Identities Act of 1983. The rest of the oversight initiatives were the result of high-profile inquiries and a phase of intense patrolling that followed the firefighting. An intelligence fire alarm has sounded roughly every 7.5 years between 1974 and 2005. The longest gap occurred between the domestic spying scandal exposed in 1974 and the Iran-*contra* affair exposed in 1987, a total of 13 years. The briefest interlude between alarms occurred from 2001 to 2003, with the erroneous Iraqi WMD estimate coming quickly on the heels of the 9/11 failure.

The periodic inattentiveness of lawmakers as patrollers should not overshadow the fact that intelligence oversight has been vastly more robust than in the "good old days" prior to 1975. Intelligence oversight has benefited from the existence of two standing intelligence oversight committees on Capitol Hill, each with budget and subpoena powers. The authority of these two panels goes far beyond any other legislative chamber in the world, today or in the past. Moreover, even when lawmakers are lackadaisical

²² For the Church Committee Report, see Select Committee to Study Governmental Operations with Respect to Intelligence Activities, *Final Report*, 94th Cong., 2d Sess., Sen. Rept. No. 94-755, 6 Vols. (Washington, D.C.: Government Printing Office, March 1976). The Pike Committee Report was leaked and published as "The CIA Report the President Doesn't Want You to Read: The Pike Papers," *Village Voice* (February 16 and 23, 1976). For an overview of these investigations, see Loch K. Johnson, *A Season of Inquiry: The Senate Intelligence Investigation* (Lexington: University Press of Kentucky, 1985); and Frank J. Smist, Jr., *Congress Oversees the United States Intelligence Community*, 1947–1989 (Knoxville: University of Tennessee Press, 1991).

²³ Loch K. Johnson, "The Aspin-Brown Intelligence Inquiry: Behind the Closed Doors of a Blue Ribbon Commission," *Studies in Intelligence*, Vol. 48, No. 3, 2004, pp. 1–20. On the specifics of the Ames case, see David Wise, *Nightmover* (New York: Harper Collins, 1995).

about routine patrolling, they have proved to be aggressive firefighters. And during the more "normal" periods since 1975, the staffs of the intelligence committees have regularly queried intelligence professionals about their activities, and pored over annual budget requests line-by-line. Very little of this persistent staff work was carried out before 1975.

Kevin O'Connell, Defense Group Incorporated

The United States has been obsessed with data, and that has come at the expense of judgment. Rather than maintaining the ideal of speaking truth to power, intelligence has focused on gathering information. In many ways, this is a function of wealth—a big budget can buy lots of gadgets. The problem is that with all these so-called added capabilities, technologists assert we can collect everything. This has had two important deleterious effects on the Intelligence Community. First, the collection and technology based community is very reactive. When a crisis arises, there is a tendency to turn a spotlight on the situation, assuming that with this increased collection, the community will be able to find the answers.

This brings the second harmful effect of an overemphasis on data: There has been the temptation to turn mysteries into puzzles,²⁴ with the presumption that all the pieces can be found. But intelligence is about understanding your adversary—a function of time and thought. It is true today that the target set is much more dynamic, and while data is necessary, it cannot be an end-all solution. Much more focus needs to be placed on analysis.

Another cultural feature in U.S. intelligence is that intelligence professionals are observers rather than key players in policy. This has created a problem for both intelligence and policy. Policymakers, due in large part to the emphasis on data noted above, tend to believe that U.S. intelligence is omniscient, able to offer "persistent surveillance." While persistent surveillance might be achievable in a very small tactical environment, it is not achievable to support strategic intelligence. The overall impact of this disconnect between policymakers and the Intelligence Community has been harmful to both intelligence and national security processes.

The constant in American intelligence is how it fits into American democracy. The U.S. political view, which remains current today, is that intelligence exists to support warfighting. While supporting the warfighter is important, it relegates longer-term analysis to the backbench.

Major Discussion Themes

This session produced the most vigorous discussion of the workshop. Central issues were the dominance of data and technology, the line separating intelligence and policy, America's distinctive intelligence bureaucracies and democracy, the conflict between intelligence for military versus political purposes, and the limits on the

²⁴ For an explanation of puzzles and mysteries as they pertain to intelligence, see Gregory F. Treverton, *Reshaping National Intelligence for an Age of Information* (Cambridge: Cambridge University Press, 2001), pp. 11–13.

Intelligence Community's ability to think creatively. As a package, these issues do define a particular American perspective on intelligence.

1. U.S. Intelligence Is Dominated by Technology

One former military officer bemoaned his assignment to a "production center" in the early 1990s, rather than an intelligence or analytic center. While there was little agreement on when U.S. intelligence came to be an "industrial process" (was it after World War II or at the start of the Gulf War when targeting became the cornerstone of intelligence?), there was no disagreement about the dominant position technology occupies in U.S. intelligence. Collection and collection systems, rather than analysis, drive the Intelligence Community.²⁵

This reliance on data is not just pervasive in the IC; it is clearly an American ethos. Is it one that hurts policy and policy analysis? For example, politicians often challenge analysts for data to back up their claims, making it difficult to inject "softer" qualitative and regional expertise into the calculus of decision.

2. U.S. Bureaucracy

Most other democratic countries have several intelligence agencies, in part to ensure that no one agency has a monopoly on intelligence and the power that goes with it. Yet the United States is extreme with its 15 intelligence agencies.²⁶ Competition among intelligence agencies to get time on busy schedules compounds the task of being both relevant and useful to policymakers. In addition, because of the way they work, government bureaucracies rarely hold people and organizations accountable for mistakes. Intelligence rarely pays a price for irrelevance, and, thus, risk-taking is discouraged.²⁷ Moreover, the abundant resources of the U.S. system, which allow for a global reach, also can lead to turf battles and open the way for the politicization of intelligence.²⁸

3. U.S. Democratic Traditions

The far-reaching oversight process, particularly the role of the U.S. Congress, is another particularity of American intelligence. While this oversight is not constant, as Loch Johnson points out, it is noteworthy. In many countries, legislatures play little or no role in overseeing intelligence. And while some countries do entrust their parliaments with an oversight role, none are as extensive as that in the United States.²⁹

²⁵ For more on this point, see Michael Herman, *Intelligence Power in Peace and War*, pp. 61–112; Loch K. Johnson, "Preface to a Theory of Strategic Intelligence," pp. 5–6; Walter Laqueur, *A World of Secrets: The Uses and Limits of Intelligence* (New York, Basic Books, 1985), 15–70.

²⁶ For example, see Philip H. J. Davies, cited above, pp. 495–520.

²⁷ For more on this point, see Treverton, cited above, pp. 15–18, 177–213.

²⁸ For more on affluence and global reach see Loch K. Johnson, "Bricks and Mortar for a Theory of Intelligence," pp. 3–4.

²⁹ A summary of control mechanisms in France, Great Britain, Canada, and Australia is available in Peter Chalk and William Rosenau, *Confronting the Enemy Within: Security Intelligence, the Police, and Counterterrorism in Four Democracies* (Santa Monica, Calif.: RAND Corporation, 2004). Legislative oversight mechanisms (as well as other oversight

Dating at least from Seymour Hersh's *New York Times* reporting on CIA misconduct in 1974, the media has also played a historic role in ensuring transparency in the U.S. Intelligence Community.³⁰ The so-called "CNN effect" was born in and is most prevalent in the United States. "All news, all the time" often forces the IC to play catchup or to prove or disprove what is on media outlets. The 24-hour news cycle can actually alter IC collection and analysis.

4. Civilian/Military Conflict in the Use of Intelligence

Another aspect of the U.S. system, though certainly not one that is unique, is the powerful role the military plays in the Intelligence Community. In some views, this may come at the price of less intelligence attention to forestalling crises and diplomatic solutions, and more emphasis on tactical military intelligence. By contrast, during the cold war, so-called national consumers drove intelligence at the national level (although not at the tactical level).

KEYNOTE SPEAKER ERNEST MAY, HARVARD UNIVERSITY

Alas, two intelligence successes of note, those by the Germans of 1940 and al Qaeda in 2001, have been accomplished by people we would have preferred to see fail. The two share one common theme: They both understood their adversary's vulnerabilities.

Conventional wisdom regarding France's rapid defeat at the hands of Germany in 1940 has drawn three conclusions, thought to be obvious. Germany must have had crushing superiority, not only in modern weaponry but also in an understanding of how to use it. France and its allies must have been very badly led. The French people must have had no stomach for fighting. None of the three is true. In 1940, in relative terms, France was considerably stronger than Germany by virtually any measure; its leadership was anything but incompetent; and by the late 1930s, the French defeatist attitude had turned around. In any computerized simulation today of their 1940 battle, the French would soundly defeat the Germans.³¹

So what happened? German planners were so convinced they were going to lose any battle with France that they actually prepared to attempt a coup against Hitler. Yet,

procedures) of the United States, Britain, France, Brazil, Taiwan, Argentina, Romania, South Africa, Russia, and the Philippines are examined in Thomas C. Bruneau, ed., with Steven C. Boraz, *Reforming Intelligence: Obstacles to Democratic Control and Effectiveness* (Austin: University of Texas, 2006); and various European structures are evaluated in Hans Born, "Democratic and Parliamentary Oversight of the Intelligence Services: Best Practices and Procedures," Geneva Centre for the Democratic Control of Armed Forces, Working Paper Series No. 20 at http://www.dcaf.ch/publications/Working_Papers/20.pdf.

³⁰ See Seymour Hersh, "Huge CIA Operation Reported in U.S. Anti-War Forces, Other Dissidents in Nixon Years," *New York Times*, December 22, 1974, and the *Final Report of the National Commission on Terrorist Attacks Upon the United States*, online at http://www.gpoaccess.gov/911/.

³¹ Adapted from Ernest May, *Strange Victory: Hitler's Conquest of France* (New York: Hill and Wang, 2000).

they knew they would be unsuccessful at home because of his popularity. Thus, they set out to try to defeat France, and the critical element was intelligence analysis. Contrary to expectations, the Germans had only a very weak information basis. German communications intercept capabilities were weak, and the country had little imagery and few agents within France.

What they did have was an understanding of French culture. They knew enough to think about *vulnerabilities*. The Germans understood that the French were preoccupied with procedure and detail oriented, their communications were good, their staff work was meticulous, and they would hold fast to a doctrine of a continuous front. In understanding these vulnerabilities, the Germans judged that the French would react very slowly and methodically and, thus, could be surprised. The Germans developed a plan that capitalized on this weakness.

By contrast, the French leadership made no effort to understand German thinking. They paid little attention to the intelligence reports that provided clear evidence that German forces were massing along the border away from the heavily fortified Maginot Line. They neglected to prepare for the possibility of surprise, and, as German analysts predicted, they could not react promptly once events proved to be at odds with their expectations.

The attack planning carried out by the 19 young Middle Easterners on a budget of less than a half million dollars was reminiscent of Germany in 1940. They made themselves experts on the U.S. system, especially the airport security and air travel system. They knew there was no cockpit security system, that overall airline security was weak and organized around the standard hijacking threat, and that the screening procedures at the airports would let them get their weapons onto the aircraft. They also conducted enough test flights to ensure that their knowledge of the air system's procedures remained current.

The story of France/Germany in 1940 and the U.S./al Qaeda in 2001 are examples of intelligence successes and failures. The failures represent several similarities. Both reflected overconfidence. Both the French in 1940 and the United States in 2001 had good intelligence and should have been able to connect the dots. However, there was no attempt to do so, especially in the French case where there was a huge disconnect between intelligence and operations. In fact, intelligence in France was ghettoized in the military.³² The French never made an attempt to analyze what their collection—especially that on German reconnaissance flights—was telling them. They never asked the question "suppose the Germans do something unexpected."

September 11 is nearly as bad. It clearly was an intelligence failure, one that was avoidable, even if the disconnects between intelligence and policy were not as bad as for France in 1940. In both 1940 and on September 11, the responses were static. A final similarity might be too little emphasis on the importance of secrecy. The French, in particular, did not keep secrets well—all of their doctrine was published.

³² For more on the cultural mistrust between French decisionmakers and intelligence, see Douglas Porch, *The French Secret Services: From the Dreyfus Affair to Desert Storm* (New York: Farrar Straus & Giroux, 1995).

The failure of imagination was so obvious in the French case, in not allowing for the thought that the Germans might attack somewhere other than where France expected. The failure was also plain in the al Qaeda case: Why are they training pilots? Asking these "what ifs" needs to be done regularly and routinely in all steps of military and political planning. It was done on a regular basis during the cold war, a practice that needs to be reinstituted.

With regard to analysis, if judgments are based on facts but still more so on presumptions, a good guide is Sir Geoffrey Vickers' *The Art of Judgment: A Study of Policy Making* (London: Chapman and Hall, 1965). Vickers's work is quite complex, but for him nothing stays constant, and the point of intelligence is helping decisionmakers arrive at an "appreciation." Vickers identifies three types of judgments, which interact in an appreciation:

- Reality—What is going on?
- Value—So what?
- Action—What should be done about it?

Reality judgments can be further sorted into "known" and "presumed." They are the natural home for intelligence organizations and professionals but only in the context of value and action judgments. Value judgments can be broken into "cultural axioms" and "calculations of interest." Action judgments can be classified as strategic ("what to do) and tactical (how to do it"). Intelligence will be more effective if it is informed by all three kinds of judgments, even as it focuses on reality judgments.

SESSION 3: WHICH ASSUMPTIONS SHOULD BE OVERTURNED?

This session adopted a skeptical perspective on the assumptions that have long guided discussions of intelligence in America and abroad. For instance, is intelligence essentially a sovereign or national enterprise that serves only the highest authorities in the state, or should it serve other needs as well? Michael Herman doubts that national intelligence can extend very far in promoting international transparency.³³ Is he right? Is intelligence always "about" secret information and/or secret activities in this digital age? Is there really a sequential intelligence "cycle," or are the boundaries between "collection," "analysis," and "dissemination" now so blurry as to require a new model? What, if any, distinction between intelligence and other forms of information is useful for decisionmakers? Should there be hierarchies of intelligence customers or information?

Presentations

Philip H. J. Davies, Brunel University

For starters, notions of theory should be treated with great skepticism. So should the idea of a "revolution in intelligence affairs." Indeed, in the social sciences all of the most important questions are empirical, as are all of the most important answers.³⁴ Intelligence studies are not "under-theorized," and indeed, theory should be avoided wherever possible in the social sciences. Rather, empirical research is essential, but empirical trends and patterns are *not* theories.

Here are three provocative hypotheses. First, the development of intelligence theory and effective intelligence coordination are *inversely correlated*. Second, theory building is an attempt to assert intellectual order in the absence of real, institutional order. Third, the only intelligence *theory* in the world is *American* intelligence theory. Theory building is a consequence either of American emphasis on theory-driven political practice from a Lockean tradition and the Federalist papers, *or* a consequence of American notions of scientific method or professionalism.

For its part, international relations theory is mostly about an *attitude* towards international relations rather than any real knowledge of it. So, it is not much help. The main schools might be caricatured as follows:

- Realism: everyone's a bastard, or ought to be;
- Idealism: everyone will be nice to you if you are nice to them, or ought to be;
- Liberalism: everyone can do business, or ought to;
- Rationalism: everyone should balance everyone else against everyone else, or should at least try;
- Constructivism: everyone is just living out their cultural history whether they are or not, and ought to be doing so whether they do or not.

³³ Michael Herman, *Intelligence Power in Peace and War*, pp. 362–378.

³⁴ See Davies, cited above.

Theory in hard sciences refers to generalized truth, such as laws of motion or electrodynamics. But some areas in the hard sciences are virtually theory-free. An example is biochemistry; cell biology is a matrix of chemical mechanisms mapped with varying degrees of comprehensiveness. The same can be said for genetics, which is *not* a theory but a body of known and estimated chemical interactions. Once again, not much help here either.

More specifically, virtually all the assertions about a "revolution in intelligence affairs (RIA)" literature are empirically unsound. Most of those who espouse the so-called RIA claim that

- The threat is fragmented, but it always has been fragmented. Witness British requirements in the 1930s—rising Axis, subversive Communism, colonial security, Irish republicanism, and domestic fascists. The same could be said for the 1960s and for other decades as well. Rather, the notion of a non-fragmented threat seems to be a consequence of the U.S. foreign policy community's tendency to obsess on a single "hot" topic—during the cold war the Communist threat, which produced a failure to deal with national liberation movements as autonomous, and the Islamic threat now.
- The environment is changing, but it has always been changing. Witness the above requirements for 1930s.
- Most information is now in the public domain *or* in private hands. But that, too, has always been the case. At the beginning of the last century, Britain planned to acquire intelligence from banks and trading companies. At the outbreak of World War II, the British Ministry of Economic Warfare (MEW) was set up, and this included its own Intelligence Branch, the IIC.

If Kevin O'Connell asserts that "information historically held only in Washington and Moscow transits the Internet at lightning speed," is he referring to IRA operational plans, the Indian 2002 nuclear triad white paper, or the location of North Korean nuclear warheads? Governments do not need intelligence agencies to read newspapers, journals, or the like.

Historically, definitions of intelligence have been broad in the United States and narrow in Britain, although there are dissenting voices in both camps. Broad definitions are unwise. They open the door to having interagency assessments done by *analytical producers* rather than *operational producers*. Therefore, their products will tend to be *competitive* rather than *complementary*. If that is true, then broad definitions tend to generate conflict rather than consensus, and to intensify turf wars and bureaucratic politics rather than reduce or resolve them. Broad definitions also may create opportunities for entrepreneurs to find "angles" to pitch their particular variety of snake oil. They thus favor the "spinning bow ties" and "plastic belts" of the consultants, Beltway bandits, and other policy parasites. Intelligence should draw a lesson from the experience of information and infrastructure security deliberations during the 1990s, which were hijacked by the information technology (IT) community.

Wilhelm Agrell, University of Lund

On December 26, 2004, an exceptionally strong earthquake rocked the ocean floor under the Indian Ocean creating a disastrous tsunami wave. It claimed around 250,000 lives, including several thousand foreign tourists. At this time, around 30,000 Swedish citizens were vacationing in the exposed area. Of these, 500 died or were permanently reported missing, a toll that, given the small size of Sweden's population, would be equivalent to 15,000 U.S. deaths in the September 11 attacks.

As it turned out, the tsunami became a major national disaster for a number of European countries, but a disaster in a completely unforeseen setting. The crisis response was in many countries a failure, with slow and inadequate reaction. But embedded in this crisis management failure was also an intelligence failure. Not because intelligence can foresee an unforeseeable event, but as events unfolded "no dog barked," because no dog was on watch.

Intelligence could have helped considerably by gathering easily accessible but critical information and putting the dots together. Yet it did not do this. This represented a missed point of intervention. Certainly, the wave could not be stopped, but much more could have been done to mitigate the losses. This was a lack of intelligence in one of the most fundamental senses—the lack of comprehension.

The fact that 30,000 Swedish citizens were on holiday in Thailand points to the fact that the world has changed and with it the meaning and content of security. We have become vulnerable in new and often unforeseen ways. The traditional intelligence systems have displayed, after the cold war, an inability to deliver in terms of warning, comprehension, and management support. The tsunami disaster in 2004 and the September 11 attacks are not isolated events but, rather, are part of a string of similar, known and unknown, symptoms of an existing and possibly growing intelligence crisis.

Is there a revolution in intelligence affairs? So far the answer is no. However, there is a crisis, something that could be described as an approaching revolutionary situation, when circumstances will make drastic changes in the concepts and conduct of intelligence unavoidable. Part of the problem—the fact that intelligence systems as we know them are based on WWII and the cold war—is very difficult to do anything about. Still more basic, however, are the dominating concepts, or misconceptions, in intelligence that must be put in question and perhaps overturned:

- The military/bureaucratic heritage has created an intelligence culture that limits and sometimes prevents the intellectual problem solving that is the core of all serious intelligence analysis.
- The intelligence cycle is a part of this heritage and is useful for the tactical and operational handling of mass data, but it is counterproductive as an intellectual model for creative problem solving. At worst, the concept of the intelligence cycle prevents an intelligence system from thinking.
- Intelligence systems today are not innovative, but innovation is, and will be, their main task.

This diagnosis leads to three propositions:

- 1. Abolish the intelligence cycle as the fundamental model for thinking about intelligence and constructing intelligence systems.
- 2. The prime task of qualified national and international intelligence bodies should be defined not in terms of production but rather of innovation. In this regard, intelligence could learn a lot from other fields of enquiry in society.
- 3. Analysis and collection are not two different activities but two names for the same search for knowledge.

Denis Clift, Joint Military Intelligence College

During the recent election campaign in Britain, Prime Minister Tony Blair took a group of British magazine editors on a tour of No. 10 Downing Street. In the state dining room he said, "There's a portrait of King George. When he was around, we still had America." Britain no longer has America, but the United States, thanks to George III, has the most remarkable set of checks and balances of any nation, any government in the world.

As the new national intelligence leaders take office, they understand the challenge that comes in safeguarding individual liberties at the same time as safeguarding security.³⁶ The two are not easily compatible. A tension is created, and if we are to succeed as a democracy we must maintain that tension. The DNI and Deputy DNI have available to them the recent history of citizens and different voices of government. Some are vigorously protesting the increased surveillance authorities given to the government under the Patriot Act at the same time that they are asking why foreign intelligence, homeland security, and domestic law enforcement are not yet working smoothly, seamlessly, and effectively to give assurances that there will be no repeats of September 11. In addition to the findings of the 9/11 Commission and the WMD Commission, these new leaders can look back almost 30 years to the 1976 Church Committee report on Intelligence Activities and the Rights of Americans.³⁷

In August 2004, the President acted on one of the 9/11 Commission's important recommendations establishing the National Counterterrorism Center.³⁸ That action

³⁵ David Remnick, "The Masochism Campaign," *The New Yorker*, May 2, 2005, p. 86.

³⁶ Douglas Jehl, "No. 2 Intelligence Nominee Testifies on Privacy Rules," *The New York Times*, April 15, 2005, p. 16; for statements by John Negroponte and Michael Hayden, see, respectively, Message to Members of the United States Intelligence Community from the Director of National Intelligence, April 22, 2005; and Jehl.

³⁷ See, respectively, *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks Upon the United States*, New York: W.W. Norton & Company, 2004, p. 423; *The Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction*, U.S. Government Printing Office, Washington, D.C., 2005, p. 468; and "Intelligence Activities and the Rights of Americans," Book II, Final Report of the Select Committee to Study Government Operations with Respect to Intelligence Activities, United States Senate, 94th Congress, 2nd Session, Report No. 94-755, Washington, D.C., April 26, 1976, pp. 1, 5, 20, and 289.

³⁸ Executive Order National Counterterrorism Center, http://www.whitehouse.gov/news/releases/2004/08/20040827-5.html

derived from the 21st-century perspective that intelligence is no longer solely a national enterprise trained beyond our borders and serving the highest authorities of the state. National intelligence now must extend its services to the state and local needs of the nation. Whether or not this Center will be truly effective will depend on the boldness with which the new national intelligence leaders lay the old assumption to rest.

If this Center is to be effective, it must act on the 9/11 Commission's call for the exercise of imagination. It must act on novelist John LeCarre's observation that "intelligence is the left hand of curiosity, that gathering, analyzing, and using information is a natural part of what we do if we are doing it well." If we are doing intelligence well, we will be startled by the talents and the contributions that can be drawn on across the nation. If we are doing it well, we will be amazed by the new paradigms for gathering, analyzing, and using information.

Jennifer Sims, Georgetown University

A number of key assumptions, widely accepted as conventional wisdom among intelligence reformers, are simply wrong. First, *academics cannot help*. Actually, intelligence theory done by academics can provide important insights about the strength and weaknesses of intelligence systems. Business is ahead of government in understanding the importance of using theory to improve intelligence and thus enhance profits.

Second, *intelligence necessarily involves secrecy*. This assumption is important because it implies that the most important information about our adversaries is secret and must be stolen. In fact, that may give them too much credit. They may not be securing information about their greatest assets and vulnerabilities. For example, if the Japanese had been collecting open source information during WWII, they would have learned from American newspapers that their code was broken before Midway and changed their encryption methods. As another example, a prototype of the Nazi's famous encryption device, the Enigma machine, was first exhibited at an open trade show in Germany.

Focusing on clandestine collection diminishes the perceived value of technologies related to processing and exploitation, which are regarded as more mundane and thus less critical to the enterprise. There is also an analytical bias toward intelligence that comes with higher classification. The more secret some piece of information is, the "better" and thus the weightier it is assumed to be. After all, what is harder to get must have been more "hidden" by the adversary and thus more crucial to understanding the threat. This is wrongheaded. The sensitivity of the collection method, a key determinant of classification, does not necessarily correlate with the quality of the product. Assuming that good intelligence involves information collected principally through secret means renders the United States particularly vulnerable to manipulation and deception.

Third, *intelligence is a service*. The implication here is that the decisionmaker is not part of the process, but rather a master to be served. In fact, decisionmakers must play a role in identifying critical policy decisions that require intelligence support, informing collectors of the pace of policy and requirements for timeliness, and providing

³⁹ George Plimpton interview with John LeCarre, CSPAN, 1997.

feedback on where intelligence is helping and where it needs improvement. Decisionmakers must be educated to their role in the intelligence process and assume their share of responsibility for both its successes and failures.

Instead of thinking that they speak truth to power, intelligence analysts should help policymakers improve their understanding of reality, recognizing that cognitive biases exist in any human appreciation of events—including their own. The process is best understood as a matter of adjustment in perceptions and a deepening of knowledge among all those involved. The notion that intelligence holds "the truth" (and policymakers do not) undermines the process of intelligence support. Policy decisions by their very nature exclude some options and thus involve narrowing the set of helpful and relevant information for the next decision. To this extent, useful intelligence will be somewhat subjective. This does not mean, however, that intelligence analysts, striving for relevance, should refrain from examining past assumptions. They should simply retain a degree of humility with respect to ownership of truth.

Fourth, the Intelligence Community is afflicted with collection stovepipes. In fact, optimizing collection would imply vertically integrating all of collection's five essential components: command and control; sensors; platforms; processing; and exploitation and communications/dissemination. The problem in the U.S. case is that these five components are not vertically integrated. Different agencies are involved in managing platforms, sensors, and communications in particular. This leads to bottlenecks and coordination problems. The creation of "centers" may actually make flexible intelligence collection against a changing threat picture harder than in the past since it will wed collectors to particular missions, and then the managers of those missions will be loathe to cede their control over collection to new and emerging threats. The "seniors" within the Intelligence Community should remain the heads of the collection disciplines, people with no particular mission-related biases and thus able to fully appreciate new threats as they arise.

Fifth, bureaucracy and bureaucratic culture are bad. Intelligence bureaucracies reasonably adopt cultures that reflect their businesses—espionage operations, the mathematics of encryption, translation of foreign language, and the intellectualism associated with analysis. In fact, few intelligence professionals believe case officers should act and think like intelligence analysts. Recruiting for and reinforcing the qualities that contribute to these different skills reinforces those cultures. The Intelligence Community, which has been criticized for groupthink, should seek to encourage diversity and a cross-agency appreciation of that diversity—not to shed it or deny its worth. At the same time, bureaucracy should be recognized as crucial to intelligence accountability in the United States, even as managers seek to streamline and make it more efficient.

⁴⁰ For more on analyst subjectivity see Kevin Russell, "The Subjectivity of Intelligence Analysis and Implications for the U.S. National Security Strategy," *SAIS Review*, Vol. 24, No. 1, Winter–Spring 2004, pp. 147–163.

Major Discussion Themes

Discussion continued on whether or not theory was applicable to intelligence and on the merits or pitfalls of the U.S. intelligence system. Several new themes did emerge: new paradigms, managing intelligence, and the utility of the intelligence cycle.

1. Are There New Intelligence Paradigms?

Wilhelm Agrell's characterization of the tsunami as an intelligence failure prompted discussion of what intelligence should do to support issues not normally associated with intelligence. The tsunami was not an intelligence failure, *per se*, but rather a warning failure in a broader sense because no one connected the dots—or possible dots. If it is to stay relevant, intelligence needs to be like human vision—binocular, providing depth to what we can be seen in front; and peripheral, which provides warning. What intelligence ought to be able to do in supporting nontraditional requirements is to inform a broader array of decisionmakers. That will be true for issues like the environment and for functions like technology and collaborative thinking.

2. Intelligence Management

Does the current bureaucratic structure of intelligence make sense? Is there a need for a managed process at all? Perhaps a less constrained environment could produce more in the way of collaboration and creativity in problem solving. In better managing collection, the challenge is finding the appropriate "trade space" to balance weight versus speed, and risk versus expenditure. Managing requires asking not just what is needed but also what can be given up. Another issue was how to better manage open source information and alternative sources of analysis. One suggestion was to create a structure within the National Intelligence Council (NIC) that would conduct an open source research and analysis strategy for national security. This organization could also act as a contracting entity to "buy" open source work by academic and private-sector experts. That open source material could then be combined with secret sources at the NIC level to produce more cogent analyses.⁴¹

3. Utility of the Intelligence Cycle

The thought of doing away with the intelligence cycle sparked heated debate. ⁴² Intelligence professionals must ensure the functioning of the feedback mechanisms that are supposed to be embedded within the existing framework of the cycle.

⁴¹ For more on managerial aspects of intelligence and better use of open source information, see Jennifer Sims, cited above; Michael Herman, *Intelligence Power in Peace and War*, pp. 283–340.

⁴² For an excellent explanation of the intelligence cycle, see Loch K. Johnson, "Preface to a Theory of Strategic Intelligence," pp. 2–12. Another perspective is provided by Michael Herman, *Intelligence Power in Peace and War*, pp. 3660.

SESSION 4: HOW CAN INTELLIGENCE RESULTS BE MEASURED?

This session assembled some of the pieces from previous discussions. Can thinking differently about intelligence lead to better performance? If we say that intelligence does X, how can we know if it effectively did so? If we say "Intelligence is performed in order to prevent surprise," for example, the yardstick for intelligence services is different than if we say "Intelligence is performed to improve decisionmaking," or "Intelligence is done to influence events abroad." Are there common measures that might apply to several kinds of intelligence? What would it let us understand better? And, more important, how would it help us make better decisions or actions?

Presentations

James Wirtz, Naval Postgraduate School

Measuring progress in the war on terror, or progress in intelligence reform, is what might be called the "exquisite problem of victory." How can we measure the value of intelligence accurately to see if it is contributing to victory in the war on terror? Have we defeated terrorism? Is intelligence reform complete, or at least sufficiently far enough along to review it? No one actually wants an answer. Why? Because we want to talk about intelligence failure, not success. Otherwise, why would people walk away form the question?

Today's interest in devising measures of effectiveness for intelligence stems from America's pathological fascination with metrics. Yes, we can count things today that we could not count in the past. The overall aim is to find out whether money is being well spent. Of course this seems reasonable, but is it a true measure of success for intelligence? Again, no success is declarable in current terms, so this methodology is fraught with danger. Moreover, success breeds failure in the intelligence business because best practices are almost never incorporated into analysis.

Because of intelligence's role in supporting policy, perhaps it is better to review whether U.S. policy is succeeding. For example, was U.S. policy under the Clinton administration succeeding against Iraq vis-à-vis acquiring weapons of mass destruction (WMD)? In retrospect, the policy was successful: International economic and diplomatic sanctions and a decade of military pressure curtailed Iraq's effort to acquire WMD. But why did intelligence not recognize this success prior to the invasion of Iraq? Indeed, the irony of the flawed estimate of Iraq's WMD capabilities was ultimately its inability to recognize a U.S. policy success.

Three dimensions can be used for measuring success:

 The first is a policy dimension. Success here is measured in the Intelligence Community's ability to support policy and avoid surprise. With a list of policy priorities, intelligence could optimize resources to meet these priorities, and then determine whether or not those objectives could have been achieved. Unfortunately, there are neither lists of policies and priorities, nor a handy set of measures of effectiveness.

- 2. The second is the bureaucratic and organizational dimension. Setting government priorities produces some winners and some losers. The main issue here is that if success can be measured and found, what happens to the budget of an organization? Will more funds be appropriated for success or will achievement result in reduced budgets? Moreover, if funding changes based on success, will books get cooked to provide measures of effectiveness to justify current or increased budget requests?
- 3. The third is a political dimension, which looks to accountability and effectiveness. Does the U.S. have an oversight that can address accountability and effectiveness? What would be the political backlash that might result from "out of control spies?" Can the U.S. Intelligence Community be too effective? Does the American public really want a highly effective Intelligence Community? Politicization will become an issue. Again, was Clinton policy successful on the WMD issue? Was it possible for analysts in the Bush administration to conclude that a Democratic administration had managed to cobble together policies that curtailed Iraq's WMD programs? Could that type of analysis be accepted in current policy circles?

Richard Betts, Columbia University

Metrics can be developed for operational and tactical intelligence. For example, were targets identified by military planners the right ones? Were they hit and destroyed? Beyond that, however, measuring success is difficult. Imagine trying to establish metrics for academia!

Theories are critical for metrics because intelligence failures are a result of failed theories. A theory that predicts nine of ten events is a very good theory. But the one failure may be significant. Moreover, in any given instance, the role of intelligence is bound to be entangled with so many other factors. In retrospect, choices look overdetermined, and intelligence's impact cannot be disentangled from policy. Thus, the value of analysis, let alone theory, for social and political issues is hard to demonstrate. It is natural to want to know what we are getting for our money. One approach might be to look at a range of intelligence *successes*, not just failures, and to examine why they were successful. What factors caused success?

In general, metrics can be useful in three ways:

- Informing policymakers: Was the information and assessment timely and complete? Did it amount to a useful library for policy?
- Predicting events: If the analysis made predictions, did those come true? If not, why not? Did a change in policy alter the course or event? Was this change based on intelligence or not? Determining success or failure in this dimension is bedeviled by the "self-negating prophecy": policy changes based on good intelligence can alter the course of events and make the information appear inaccurate.
- Subjecting assumptions to testing by evidence: Were assumptions that formed the basis of alternative policies identified and tested? This is the hardest and most subjective, and is probably the most vulnerable to politicization.

Throughout the process, politicization is a danger, and what passes for "truth" may be the result of estimation or the confrontation of opposing viewpoints. How much of apparent success is serendipity rather than the result of sound methodology? And, again, determining success or failure in the absence of an event is impossible. Has intelligence been successful because there have been no major terrorist event on U.S. soil since 2001? In the final analysis, who grades the Intelligence Community's report card? It would be welcome if the public were better informed about intelligence, for now abject failures grab the attention. Surely, one place to start would be by declassifying much more intelligence product in order to provide a broader base of evidence for testing any propositions about how to measure success.

Major Discussion Themes

This discussion asked whether or not it makes sense to try to measure intelligence outcomes. Included in the summary below is a brief discussion of some potential external sources from which the IC might learn. Regardless of views of the utility of metrics, there was broad agreement on the wisdom of declassifying data and cases in order to facilitate research into what led to success and failure.

1. Some Discernible Metrics

For those who believe that metrics have some utility in evaluating intelligence, some candidates might be:

- Customer satisfaction—was intelligence timely and/or was the level of detail adequate?
- What was the impact of intelligence? Did it lead to significant changes in or reevaluation of policy?
- How well is the information flowing through the system?
- What level of access does the IC have to policymakers and are they listening (a credibility measurement)?
- Has risk been reduced for decisionmakers?

2. Can Measurement Be Done?

The cynics argued that measurement was little more than bureaucratic attempts to procure or maintain funding. Many thought the bulk of measurement would be conducted "in-house," leaving its reliability in question. If the broadest question is, "How is intelligence measurable anyway?" the following hurdles are also present:

- Is it possible to devise a metric for secrecy? The value of secrecy can be high or low depending on the situation. The need for secrecy must also be balanced with the fact that we live in a "need-to-share" world.
- How can the quality of analysis be measured? Is it possible to provide objective evaluations, particularly for controversial or politicized issues?

- Multiple actors and multiple methods of policy implementation make determining measures of effectiveness exceedingly complex.⁴³
- Developing a good process does not guarantee useful results.
- Too much depends on "negative evidence." Donald Rumsfeld's comment in another context is surely apt in this one: the absence of evidence is *not* the evidence of absence.
- Intelligence assessments are necessarily probabilistic, but only actual outcomes can be observed.

⁴³ Walter Laqueur neatly summarizes a major dilemma of measuring intelligence success: "It could be argued that, almost by definition, intelligence is always bound to fail. If it correctly predicts the political or military initiative of another country, and if as a result, countermeasures are taken and the initiative does not take place, it will be blamed for making false predictions." See *A World of Secrets, The Uses and Limits of Intelligence*, p. 4.

CONCLUSIONS

The daylong workshop on the Theories of Intelligence did what it was designed to do: provide an open forum for debating a number of assumptions that intelligence professionals and interested observers carry into discussions about the future of intelligence. The discussions were freewheeling, the contending positions were erudite and often passionately expressed, and the agenda was intentionally *not* structured to impose a consensus. Issues debated by the participants included

- whether "intelligence" is limited to what the Intelligence Community does or even to what governments do;
- whether the President and his team are the primary customers;
- whether closer relationships between intelligence officers and policymakers inevitably lead to "politicization";
- how the nature of the threat has or has not changed;
- whether the military has been or should be the primary driver of intelligence innovation;
- what is the difference between "intelligence" and "mere information";
- whether the development of a domestic intelligence capability in the United States is warranted, prudent, or safe;
- whether the satisfaction of customers with the intelligence they receive can or should be measured.

The range of views among participants suggests why, even among those who might agree on the need for intelligence reform or "revolutionary change," it is difficult to agree on a course or even courses of action. While many observers can list current problems, the divergence of their views over the very essence of intelligence hampers agreement on what is essentially wrong, how it can be changed, and whether changing it will make any significant difference in national security outcomes.

Certain notions about intelligence did, however, hold a measure of gravity that kept the participants coming back to them across the various panels and side discussions. For instance, while some questioned the utility of exploring theories of intelligence, others insisted that it is possible to establish causal relationships between intelligence and certain outcomes, and felt that exploring these relationships was essential to improving intelligence. Indeed, one leitmotif of the day was argument over whether intelligence as a discipline is better examined via empirical theory (describing its phenomena but not offering any prescriptive comment) or by normative theory (conceiving of it as a greater or lesser realization of a set of principles or ideals).

One insight was that there is no uniquely "American theory of intelligence." Participants would surely agree that what the United States officially calls intelligence is different in degree—but not in kind—from that done by other nations. There may be a distinctive American practice of intelligence, as John Ferris explained, but Americans

have not invented something new that is qualitatively different from what other nations have deemed intelligence.

Another common insight from the day was actually a lament that scholars lack access to many of the empirical data that would help them theorize about intelligence, or at least gain a better understanding of its history. Practitioners attending the workshop may have felt somewhat more comfortable that their own experiences of intelligence work had given them enough information for some reasoned judgments about it, but even they conceded that personal acquaintance with the discipline is by definition subjective, anecdotal, and limited. All present agreed with the frequently voiced observation that much more documentary evidence about the practice of intelligence in more countries needs to be made available—and carefully evaluated from a comparative perspective—before anyone can be reasonably comfortable with the state of knowledge in this field.

Two issues recurred through the workshop without coming close to being settled. They too are areas for further inquiry. One is the line between foreign and domestic intelligence. It was noted that one of the particularities of the United States is that it has drawn a sharper line between foreign and domestic intelligence than most states. It has also drawn a sharper distinction, domestically, between intelligence and law enforcement than many other nations. Both sets of distinctions have been driven by concern for civil liberties.

In the wake of 9/11, the United States has all but eradicated the distinction between domestic intelligence and law enforcement, and it is expanding the reach of the former. Future inquiries might ask how, as law enforcement and intelligence are pushed together, the techniques from the former might enrich the latter—for instance, techniques for conducting investigations or vetting sources where law enforcement practices may be more appropriate for dealing with new transnational targets than traditional intelligence procedures. And thinking about theory and practice across countries might also enlighten what is bound to be a continuing debate about whether the United States ought to emulate many of its partners and create a separate domestic intelligence service or even, on the Canadian model, merge domestic and foreign intelligence.

Finally, what is the changing role of nation-states, both for intelligence, and in intelligence? Participants at the workshop seemed to feel there was something different about the intelligence of states, at least in the urgency of the stakes. But state intelligence functions may be differentiated from those of transnational groups—ranging from terrorists to corporations to NGOs—mostly, if at all, by the scale of resources and, thus, their ability to benefit from special sources.

One line of inquiry, suggested by Ernest May's remarks, is the interplay of state intelligence and its transnational opponents, like terrorists. Previous state targets for intelligence, especially the Soviet Union, could, if only as a first approximation, be analyzed in a static way, on the assumption that Soviet intentions and capabilities had little to do with American or NATO actions. The threat from terrorists is utterly different. As an asymmetric threat, they, like the 9/11 hijackers, seek to understand the operational code of states. They are looking for seams or vulnerabilities. Their intentions, and even their capabilities, are shaped utterly by what states do. Thus, transnational targets for state intelligence cannot be understood by intelligence if intelligence does not also know what

the state is doing—a new and uncomfortable situation for intelligence, especially American intelligence that has drawn such a sharp distinction between home and abroad.

A more familiar line of inquiry begins with the observation that as the nature of states change, states—even the most powerful state, the United States—are more the builders of coalitions than the "doers." The campaign against terrorism is inherently multilateral; no state can protect itself on its own. And as nations build coalitions, one of the critical things they can offer would-be partners is information—or intelligence.

Here, a theory of intelligence might help intelligence move beyond its *ad hoc* initiatives. Theory might help because moving intelligence back and forth to state and local partners, let alone non-friendly limited partners in the war on intelligence, will take intelligence back to first principles: who needs what, when, and how? What is intelligence? What is classification and "need to know"? Ultimately, the challenge for intelligence will be to do what it has never done before: recognize that security procedures embody a trade-off. Every protection of information has a cost, not just in money but also in effectiveness—someone will fail to see something or learn something that could have made a difference.

The end of this line of inquiry returns to Michael Herman's question. Historically, intelligence services have been the most *national* of state institutions. More so than armies, they have been designed to give states a leg up on their (state) opponents. Now, as the nature of states change, how far can their intelligence services become focal points for cooperation, even transparency? What are the limits of their potential to reach out, not just sharing choice tidbits with favored partners, but engaging in joint problem-solving with corporations and NGOs, as well as states and local authorities and foreign partners? Can those groups become not just occasional recipients of information but also sources and consumers, with roles changing from one day to the next and one problem to the next? The prospect is exciting but daunting. Thinking more about intelligence theory ought to help us understand the limits—and the opportunities.

⁴⁴ This set of changes and its implications for intelligence is explored in chapter 2 of Treverton, cited above.

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